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The Effect of Inference Strategy to Improve Reading Comprehension Skills of English Narrative Text

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Abstract

The study entitled “The Effect of Inference Strategy to Improve Reading Comprehension Skills of English Narrative Text” aims to examine the effect of inference reading strategy learning to improve students’ reading comprehension skills of English narrative text. The research was designed in an experimental one group pretest-posttest, with one month of face-to-face learning in 11th grade of a social science class of Harapan High School, Denpasar. The data collection was done using test methods (pretest and posttest) and non-test methods (questionnaires). Then, the research analysis was conducted with a mixed method. The IBM SPSS application was used to generate the quantitative comparison result of pretest and posttest. Meanwhile, the qualitative study was done descriptively regarding the main theory of inference reading strategy from Kendeo (2015). The results showed the following points: (1) There is an improvement in students’ reading comprehension score after learning the inference reading strategy by 38%. Students can infer important hidden messages from an English story using inference reading strategy. (2) The SPSS sig-2 tailed score from the T-test of pretest-posttest is $0.000 < 0.05$. This score indicates a positive, meaningful relationship between the students’ initial situation and classroom treatment. (3) Learning inference reading strategy also successfully increase students’ interest in learning and activeness in the classroom.

Keywords: Inference Reading Strategy, Reading Comprehension, Reading Skill, English Narrative Text, English Teaching.

Introduction

Reading is an essential language skill that must be mastered because it helps a person absorb information while also enriching their insight, both substantially on the topic discussion

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and linguistic aspects of language used in the text. However reading comprehension, primarily upon a text written in foreign languages such as English, is not easy for non-native speakers of the language. Therefore, applying specific reading strategy is needed to help students understand their reading content easily.

The difficulty of reading comprehension can occur due to the nature of the activity itself. Reading comprehension is a complex activity which more than just understanding a series of symbols and various words (Bárdos, 2000 in Kovács, 2018, p. 56). Readers need to understand the whole discourse and use their interpretation to understand the author's true intentions fully. Therefore, it can be said that two tasks must be completed in reading comprehension, namely interpreting the text literally and interpreting the meaning through their logic.

Reading comprehension can be an easy task, but everyone has a different level of interpreting capability. Therefore, they might face some problems in understanding the reading content. It has not yet considered such reading comprehension activity for texts in a foreign language, like English. In Indonesia, English is learned as a second language, and there are still many obstacles that students face during reading comprehension classes. One of the main problems is concluding the information from the text.

Several studies related to reading skills found that many Indonesian students had difficulty finding important text information (Hidayati, 2018; Warnidah et al., 2016; Kulsum, 2018). Students spend quite a lot of time reading but still cannot answer reading questions correctly. Most students are also proven not to know or use reading strategies to support their understanding.

Other studies (Jayanti & Dewi, 2018; Aulia & Mastoah, 2019) found the efforts of some Indonesian schools to improve their students' English reading skills through implementation of reading strategies. Various reading strategies that have been applied are reading for the main idea, guided reading, and reading aloud. However, these strategies are proven to be unable to solve the problem entirely and achieve the desired maximum results. Many students still find it hard to comprehend and interpret the text's content, find the story's basic ideas, or infer important reading information.

The 11th graders' students at Harapan High School, Denpasar City, are also struggling with the same problem. The initial observations showed that students experience many obstacles during reading comprehension activities of English narrative text. They cannot understand the text's messages, information, or elements, particularly those expressed implicitly in a narrative text (English stories). According to this phenomenon, the application of reading strategy is still

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needed to improve students' comprehension reading skills, especially for English texts that are also seen as a frightening scourge for the non-native speakers of the language.

The inference reading strategy can be a better solution than any other reading strategies types for this problem, because it offers a way to dissect a discourse while understanding the "missing" message by utilizing readers' background knowledge upon the topic of text or general issues of the world (Kendeou, 2015: 161). The inference itself is the process of pulling implied information beyond literal meanings and messages; for example are some information from questions like, "What is the main idea of the paragraph?" or "Why does the character act as told?" (Fritschmann et al., 2007, p. 246).

The characteristics of inference reading strategy also resemble the reading comprehension process because this tactic consists of two stages: reading the text and interpreting the meaning. Readers can understand the content of the text better through this reading strategy because there is knowledge assistance from outside of the text, which plays an active role in encouraging the process of interpretation of discourse. Therefore, inference strategy can be the best solution to improve students' comprehension reading skills.

Based on the above explanation, this study aims to examine the influence of inference reading strategy learning to improve students' reading skills at Harapan High School, Denpasar. This research was also developed from other similar studies that have been done before. Waluyo (2017) in his article entitled *Effort to Improving Reading Ability for Reference in English at SMP Muhammadiyah Palangka Raya Students Class VII-1 through Inference Method*, examined the usefulness of inference strategy to support reading for reference learning. Although both studies reviewed inference strategy, the concrete substance and focus of the previous study were different from this one. The study was designed in Classroom Action Research to increase students' reasoning skills in referring to the text's implied meanings and relationships. In contrast, this study is an experimental study to examine the effect of inference strategy on students' comprehension of English narrative stories.

Next, the thesis entitled *Students Difficulties in Reading Comprehension at the First Grade of SMAN 1 Darussalam Aceh Besar* by Hidayati (2018) examined various difficulties in reading comprehension of English texts and the factors that caused them. The previous study found many obstacles the students faced during English reading classes, such as their lack of reading strategies knowledge, weak vocabulary and English grammar mastery, and difficulty finding meaningful information in the text, such as basic ideas and conclusions. The relevance of both studies lies in the results of previous findings that become the background of this study.

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This research was developed as a form of follow-up to previous research that has not yet provided a solution to improve students' reading skills.

Finally, the article entitled *Inference Strategy to Improve the Students' Literal Comprehension* by Jumiati (2014) examines the improvement of students' literal comprehension reading skills using inference reading strategy. There was a 74% improvement in reading ability post-learning based on experiments. Both studies are related in terms of topics raised. However, each study is different from the theoretical foundations and test instruments used. The previous research only examined the influence of inference strategy to the extent of comparing pretest and posttest results. On the other hand, this study conducted a more in-depth analysis by examining interests, learning conditions and reading constraints experienced by students before and after treatment.

Research related to inference strategy has been done, but there are still no similar studies specifically on the activity of reading English narrative stories. By looking at some reviews above, it appears that inference strategy can improve English reading comprehension skills regardless of the type or purpose of the reading. Therefore, another reason for this research is to prove the ability of inference reading strategy to increase the reading comprehension level of narrative stories.

Research Method

This study was designed in a pre-experimental form with one group pretest-posttest design. Learning treatment was given after the pretest on the class sample. The inference reading strategy learning took place three times between pretest and post-test sessions by face-to-face meetings.

The research population was the 11th grade students of HarapanHigh School, Denpasar City, and consisting of eight classes. Then, the study sample was taken using purposive sampling techniques, as many as one class with the lowest average grade of English subjects. XI IPS 1 class was selected as the research respondent because it had the lowest average for English grade in the previous learning semester. XI IPS 1 is one of the social science classes of this school. This class consisted of 32 people with 17 girls and 15 boys.

The data collection was conducted using test methods consisting of pretest and posttest sessions and non-test methods by questionnaires. Each test used multiple-choice instruments with 4 English narrative texts and 20 questions. The weight per problem was 5 points with a total value of 100 (5 x 20 = 100).

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The questionnaire instrument was distributed directly twice, before the pretest session and after the posttest. The initial questionnaire was intended to map students' learning interests, conditions and reading problems before treatment. In comparison, the final questionnaire was intended to find out changes in the same aspects after learning the inference reading strategy.

The data collection procedure began with a pretest before students joined treatment. Pretest grades result indicated the students' reading comprehension skills before knowing the inference reading strategy. Afterwards, students took a lesson on inference reading and a post-test at the final meeting. Posttest aimed to determine students' reading comprehension ability by using inference reading strategy to study an English narrative text.

The collected data were finally analyzed using a mixed method. The quantitative analysis was done using the IBM SPSS and Microsoft Excel, while the qualitative method was accomplished through explanation referring to the theory of reading strategy from Kendeou (2015).

Theoretical Framework

Inference reading strategies are a tool to develop the ability of reading comprehension. According to Kendeou (2015, p. 161), inference reading strategy is a person's attempt to read and figure out the implied information, purpose or the moral of the text which is written implicitly. This strategy helps readers discover the critical message within the text better and comprehend new insights.

In line with this definition, Snow (2002, p. 108) also states that inference is the ability to conclude and construct the essence of reading into a piece of new knowledge in the reader's memory. Similarly, Kispal's (2008, p. 2) statement suggests that inference is the ability of the reader to reveal implicit text information, like understanding the reference intent of a text pronoun or pointing out the hidden messages of the author. Inference strategies are a helpful reading technique in studying texts or literary criticism, particularly for uncovering implicit reading messages.

There are two main stages in reading inference (Kendeou, 2015, p. 161). First, reading text initiates the brain to bring up background knowledge that readers already own, especially related to reading topics. Afterwards, this initial knowledge is further elaborated with the reader's new information to produce a new and complete understanding. The inference reading strategy can develop students' reading comprehension skills through daily class exercises. The exercises consisted of three general stages, namely:

1. Cognitive stage: Introducing and forming an initial understanding of inference reading strategy.

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2. Associative stage: Providing guidance and improvement of student errors when trying and exploring inference reading strategy.
3. Autonomous stage: Further skill development by increasing the frequency of exercises for students to use this strategy independently.

Result and Discussions

The discussion consists of two points related to the problem of study. The first discussion analyses the treatment process and its effect on students' learning conditions. Then the second is the effect of learning treatment on students' comprehension reading skills seen from the comparison of pretest and posttest.

1. The Effect of Learning Treatment on Students' Conditions

In initial observations prior to the pretest, it is found that XI IPS 1 is a class with low interest in discussion participation. Through the initial questionnaire, many obstacles faced by students are found in reading classes as appeared in the following table:

Table 1. Pre-Learning Questionnaire on Students' Learning Condition

Number	Initial Questionnaire Indicator	Number of Students	Percentage (%)
1.	Students love or are interested in learning English.	25	78,1%
2.	Students love reading lessons.	25	78,1%
3.	Students take advantage of their free time by reading English narrative text	11	34,3%
4.	Students are able to infer information from their reading	11	34,3%
5.	Students can search for implied specific information (the author's main idea, theme, opinion)	12	37,5%
6.	Students know many English vocabularies	6	18,7%
7.	Students know about reading strategy and able to use it	6	15,6%
8.	Students can comprehend a word meaning from text context	11	34,3%
9.	Students can refer supporting evidence of answers in	10	31,2%

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	the text		
10.	Students are feeling nervous when reading English text	25	78,1%

The XI IPS 1 students are highly interested in learning English, including reading classes. However, at the same time, 78.13% of them also still feel fear or nervousness during reading classes. Student learning anxiety becomes a kind of chain factor that is reciprocated with their learning problems. Those problems are unable to find specific implied information from text, cannot infer the text contents, does not understand English vocabularies, and cannot refer to supporting information evidence for answers. Students who are anxious whenever facing English text are undoubtedly unable to digest the content of the discourse to the fullest. Automatically, they will find it challenging to conclude their reading contents or find important text information.

The opposite possibility could also happen, where their lack of reading comprehension capability, understanding the meaning of English vocabulary or finding important text information is failing their reading process. Finally, these piles of failures lead to learning anxiety and fear that weighted the students in the classroom and hindered their skills development.

The high interest of XI IPS 1 students in learning English reading skills is also not in line with the number of those who actually spend their time outside of the class session to read. Only 34.38% of students are interested in reading and regularly practicing meanwhile the rest are not. The low frequency of reading exercises can directly impact the limited development of background knowledge and the student's reading comprehension ability. Even the number of students who already know a reading strategy is still deficient, only 15.62% or six people. The table above also shows that the number of students with good comprehension reading skills is still low from the total number of samples. These results show the need to learn reading strategies to improve students' reading skills.

Afterwards, the learning treatment is given to XI IPS 1 class. The inference reading strategy learning consists of three stages, namely cognitive, associative and autonomous stages (Kendeou, 2015, p. 166). The process of learning inference reading strategy in XI IPS 1 class is presented in the following table:

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Table 2. Inference Reading Strategy Treatment at XI IPS 1

Learning Stages	Learning Purposes	Class Activites
1. Cognitive stage	To introduce learning material and build students' comprehension of inference reading skills.	<ul style="list-style-type: none"> - Introduction to the concept of inference reading strategy. - Give examples of how to infer (withdraw conclusions) on images and text paragraphs. - Give initial training to students. - Give assignment to read several English narrative texts to add students' background knowledge.
2. Assosiative stage	To explore the practice of inference reading strategy and correcting student mistakes when practising.	<ul style="list-style-type: none"> -Warming-up with brainstorming sessions (activation of students' background knowledge from stories they have read). -Experiments and exercises to infer information in some English stories. -Practice on concluding moral messages of the story, the characterization of the story characters, inferring the synonyms/meanings of words from context, and finding the supporting evidence of answers. -Providing input/correction and guidance to students by teachers.
3. Autonomous stage	To familiarize students with inference reading strategy.	<ul style="list-style-type: none"> -Activating student background knowledge through brainstorming sessions. -Focusing on reading exercises and inferring information directly. -Answering some variation of reading questions, such as inferring the moral messages of the story, guessing word meaning, giving an opinion about a character, and stating important information found on the story plot. -Students learn to confirm their arguments for answers (such as providing supporting evidence or opinions) through discussion.

As shown in the previous table, the three stages of learning applied on XI IPS 1 went under the two stages of inference reading strategy application proposed by Kendeou (2015, p.

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166). Those steps consist of reading to activate initial knowledge and then elaborating the new information from the text with the background knowledge. The learning activities are broken down into smaller and concrete sub-task to help students implement this strategy easier. First, students are invited to brainstorm and present some narrative story ideas that they already know to the class. Everyone already has some background knowledge of English stories, considering that the type of narrative text being discussed is folklore that is often heard by children, like Cinderella, Kbo Iwo, MalinKundang, and so on.

Next, students are required to read the text in its entirety before inferring the story's content along with their respective background knowledge that has already been activated. A discussion of several reading-related questions follows each reading session. Teachers play an active role in guiding and giving information during discussion sessions to improve students' comprehension. Students' inferring abilities are trained by solving questions related to the story's moral message, characterization, word meaning, referring to supporting evidence of answers, and criticizing problems in the plot.

The treatment results are dug back through questionnaires. As for the result, there is an improvement in post-learning students' condition, interest, and reading ability as seen in the following table.

Table 3. Post Learning Questionnaire on Students' Learning Condition

Number	Final Questionnaire Indicator	Number of Students	Percentage (%)	Improvement (%)
1.	Students love or are interested in learning English.	26	81,2%	3,1%
2.	Students love reading lessons.	27	84,3%	6,2%
3.	Students take advantage of their free time by reading English narrative text	22	68,8%	34,5%
4.	Students are able to infer information from their reading.	28	87,4%	53,1%
5.	Students can search for implied specific information (the author's main idea, theme, opinion).	20	62,5%	25%
6.	Students know many English vocabularies.	23	71,8%	53,1%

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7.	Students know about reading strategy and able to use it.	24	75%	59,4%
8.	Students can comprehend a word meaning from text context.	23	71,8%	37,5%
9.	Students can refer supporting evidence of answers in the text.	26	81,2%	50%
10.	Students are feeling nervous when reading English text.	25	78,1%	0%

Students feel significant post-treatment improvements in their comprehension reading skills. After learning the inference reading strategy, students can understand the content of the reading text better and answer reading questions correctly. Those required skills include inferring the content of the text, mastering English vocabulary better, interpreting vocabulary meaning by understanding text context, referring to supporting evidence of answers, and looking for specific information implied in reading.

It is just that the reading strategy has not been so effective to grow XI IPS 1 students' XI IPA reading interest. This finding is evidenced by the increasing rate of student reading interest that is still not quite high. In addition, there is no reduction at all in student nervousness while reading indicators. Twenty-five people who experienced reading anxiety before treatment said they are still nervous, although the learning reading strategy help them understand the text better.

The results of the post-treatment questionnaire show that XI IPS 1 students like the inference reading strategy. They believe this tactic can improve their reading skills in general. However, this strategy still does not influence the students' reading anxiety level. This finding may also indicate that reading anxiety faced by XI IPS 1 students are a more complex and deep-rooted problem. Therefore, a long-term and painstaking treatment is needed to remove the negative impression of English reading comprehension activities that probably has been embedded in students' minds for a long time.

2. The Effect of Inference Reading Strategy on Students' Reading Skills (Pretest and Posttest Results)

The inference reading strategy positively influence students' reading skills scores as proven by the paired T-test of pretest and posttest using IBM SPSS applications. The significance value of pretest and posttest becomes the conclusion of the effect of inference

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reading strategy on students' reading skills. The paired T-test results are seen in the following image.

Figure 1. Paired T-Test of Pretest and Posttest

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE TEST	65,0000	32	18,31622	3,23788
	POST TEST	75,0000	32	14,70133	2,59885

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	PRE TEST & POST TEST	32	,749	,000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRE TEST - POST TEST	-10,00000	12,18142	2,15339	-14,39187	-5,60813	-4,644	31	,000

In paired T-tests with SPSS, the plus and minus marks have no meaning and are negligible. According to the standard test score, the Confidence Interval Percentage value set in the T-test is 0.05. The meaning of the treatment effect on the study is seen from the value of sig-2 tailed on the paired samples test output table. To conclude the study, the sig-2 tailed value was compared to the Confidence Interval Percentage value.

Based on the SPSS T-test, the sig-2 tailed pretest-posttest value is 0.000. This value is smaller than the Standard Confidence Interval Percentage so that it can be written as $0.000 < 0.05$. If the pretest-posttest comparison results are lower than the Standard Confidence Interval, it means the treatment influences the final test or posttest. This result also indicates a positive, meaningful relationship between the students' initial situation and the treatment provided in the classroom. Inference reading strategy learning has been shown to successfully change students' initial conditions to achieve better results when retested.

The reading comprehension skill improvement is also seen from the review of pretest and posttest results as in the following table:

Table 4. The Comparison of Pretest and Posttest Session Result

Indicator	Pretest	Posttest	Improvement (%)
Determine the meaning of a word, sentence or	42,2	69,5	64%

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paragraph			
Draw conclusions from the text	59,4	76,6	28%
Able to infer information related to character, language, theme and reading structure.	61,8	80,5	30%
Class Total Score	163,4	226,6	38%
Class Average Score	54,4	75,5	38%

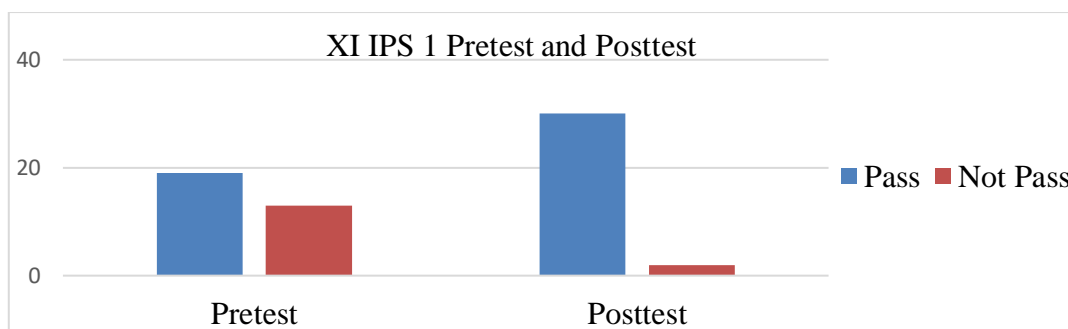
Based on the table, there is a growth in student grades from before and after learning inference reading strategy. The improvement in grades occurred by 38% for both total grades and grade point averages. The average initial score of narrative text comprehension reading of the students is 54.4 and increases to 75.7 after treatment.

Improvements can also be reviewed from each indicator of assessment. The skill of determining the meaning of words, sentences, and paragraphs increased by 64%; the ability to infer meaningful information from text boosted to 28%; and the ability to draw information related to the narrative story elements grew to 30%.

Treatment is beneficial for students to help them more easily interpret the meaning of words in a story, so they can automatically understand the text’s content better than before. Students can go so far as to infer important messages and information of an implied nature of the discourse after understanding the meaning of the story's vocabulary. However, more intensive reading training is needed to achieve a maximum percentage increase in results.

The number of students who passed the pretest and post-test exams also significantly increased as stated in the following graph.

Chart 1. The Number of Students Who Passed Pretest and Posttest



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Both tests apply a standard passing score of 60 or equivalent to 2.67 or B-, according to article 7 paragraph 3 of Regulation of The Minister of Education and Culture No. 104 by 2014 on Assessment of Learning Outcomes by Educators in Primary and Secondary Education. Only 19 students were declared to have passed according to standard grades at the pretest. The number of students who succeeded on the reading test increased by 57%, or 30 people in total. Only two students did not pass the post-test and needed further treatment guidance.

Based on the previous explanation, it can be said that inference reading strategy has an excellent potential ability to improve students' comprehension reading skills. However, the application of this reading strategy must be done more intensively and long term in order to achieve maximum results.

Conclusion

The conclusion that can be drawn from this study is that inference reading strategies positively influence the reading skills of reading the English narrative text of XI IPS 1 students in Harapan High School, Denpasar. This improvement is proven by the comparison of sig 2-tailed SPSS values of $0.000 < 0.05$ in SPSS and the manual percentage comparison of pretest and posttest average score of 38%. In line with the findings, the questionnaire results showed a growth in students' learning interest and reading comprehension skills after studied the inference strategies.

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